

## ABSTRACT

### Device for avoiding obstacles for high-speed multihull ships

5           The present invention is aimed at a device for ship making it possible to avoid obstacles, in particular obstacles submerged at low depth. By performing an early detection of the echos originating from objects situated on the route of the ship, the device allows in particular the crew of the ship to make provisions to alter the heading so as to avoid these objects.

10           In the preferred embodiment, the device according to the invention comprises at least:

- two transmitters of acoustic waves (23, 25) spaced apart from one another and transmitting waves of distinct frequencies or of different waveforms,

15           - an acoustic receiver (29), whose reception band is suitable for the emission frequencies of the transmitters,

20           - means of processing of the received signals, these means making it possible to perform, through the echos received, a measurement of the difference of the propagation times of the waves transmitted by each of the transmitters as well as a measurement of the Doppler effect which affects each of the waves transmitted; these processing means thus determining the position of a the object (27) having returned an echo.

          The device according to the invention is intended in particular for multihull ships and in particular for high-speed multihull ships.

25           Figure 2

